

WATERSHED WRAP

Quarterly Newsletter from the Coeur d'Alene Tribe's Fish & Wildlife Program describing watershed management efforts. Offering readers food for conversation and paper for wrapping!

Winter Solstice 2005

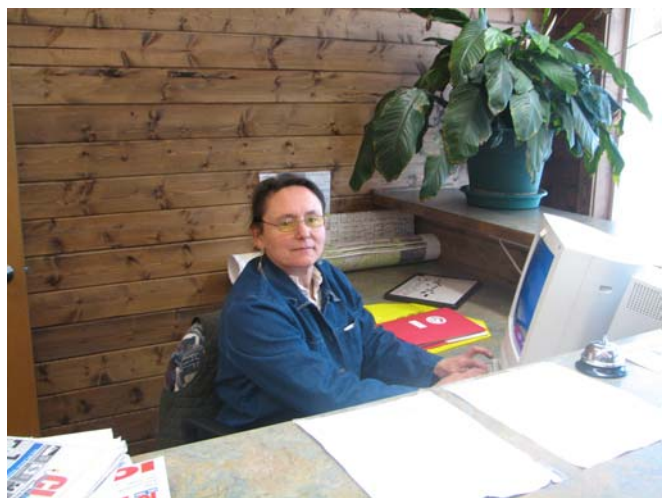
(Vol. 9, No. 4)

The Coeur d'Alene Tribe's Fish and Wildlife Programs work in a variety of cooperative, governmental, and educational arenas in efforts to protect, enhance, and restore our fish and wildlife resources. This publication is intended to provide all people interested in the natural resources of the Coeur d'Alene Reservation information about the various programs, and to solicit your support as well as constructive criticism. The Bonneville Power Administration provides funding for this newsletter.

Thank you for your interest.

Respectfully,

Mark H. Stanger, Education & Outreach Specialist



New Natural Resource Employee

By, Barb Scaroni, Clerk Receptionist

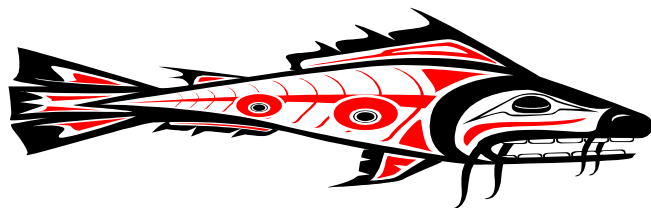
Hi, My name is Barb Scaroni. I have just been hired as the clerk receptionist at the Fish, Wildlife, Water and Lake Management office. My past work experience has been with the Tribe for the last 12 years. I worked for the Coeur d'Alene Tribal Forestry Department for ten years as a forester and other departments for two years. Some of my education includes a bachelor's degree in forestry from Humboldt State University in Arcata, California most of my work experience has been in forestry throughout the northwest for various Tribes, federal, and private forestry organizations. I have four children, and live in a small farm community of Tekoa, Washington. In my new job I am looking forward to meeting all the different people that come through our offices and support our Natural Resource programs as they work towards making this area an even better place to live.

Youth Fishing for Steelhead at Cherry Lane Fish Hatchery

By Mark H. Stanger, Education & Outreach Specialist

The Nez Perce Tribal Fish and Wildlife Commission, in coordination with Nez Perce Tribal Department of Fisheries Resources Management Production Division, invited the Coeur d'Alene Tribal youth to participate in a steelhead dip net and gaff pole fishing demonstration at the Nez Perce Tribal Hatchery at Cherry Lane by the town of Lenore, ID. At this site the youth were given an opportunity to experience the old style or traditional methods of fishing.

Coeur d'Alene Tribal Fisheries staff, Mark Stanger and Dan Jolibois along with volunteers Dwayne Brown and bus driver Linda Osterburg loaded up the youth and headed to the hatchery to experience a first time dip net and gaffing adventure. The opportunity for this trip became available at the last minute, but luckily the Junior High School had a day off so we were able to gather a few interested students. The students that participated were very enthusiastic and excited about going down to Cherry Lane to catch some big steelhead trout using traditional harvest methods.





Students fishing L-R , Cougar, Josh, Victor, Adrian, Avery, unidentified youth, Quinton, Joseph on top of wall, Sam holding the dip net and Debbie not in picture.

Coeur d'Alene Tribal students arrived at the hatchery just as some other students were leaving, so we timed it just right. There was one youth (Jalon Greene from the Nez Perce Tribe) that stayed to help teach the others how to use the dip net to catch the big steelhead. Josh Sanchez was the first student to snag a big steelhead, and then Adrian Brown caught two in one net! There were some big fish that the youth caught weighing from 10 to 27 lbs. As you can see in the picture above Avery Brown caught a big steelhead and she was very happy!



Jalon Greene helping Debbie Williams pull in a big steelhead trout!

Debbie William also caught a good-size one and was very excited that she could catch a fish that big. All the students had a good time catching fish that afternoon. It was a nice bright sunny day just right for fishing. Most of the youth caught two fish apiece.

One of the most important lessons taught to our youth was our traditional values, just as our elders

taught us. We talked to the students about these values; such as what you do with your first kill. When you catch your first fish or shoot your first animal, you are supposed to give it away to family or an elder out of respect for the fish or animal. We honor these brothers that have given themselves up for our benefit, and honor our elders with the gift of our first success. We also discussed the important value of taking only what you need, and thinking of future generations when you are harvesting. We stressed the importance of the idea of a sustainable harvest, including allowing time for the food chain to recover after fishing or hunting. After this lesson was explained to the youth, they each donated one fish for the Veterans Day Pow-Wow, which was held the next day. (A special thanks from the Veterans)

We would like to thank the fish commission members Nancy McAllaster, James Holt, Aaron Gould and Larry Greene from the Tribal Executive Community Committee that was there to greet us and talk to our youth about fishing and the lunch they provided for our us, and all the work they did in planning this special event for all the youth that participated. We also thank the Volunteers that helped with all the youth, without them opportunities like this would have never happen. *Lim Lemt.sh*

Tribal Wildlife Grant Awarded for Forest Carnivore Study

By Nathan Albrecht, Fish and Wildlife Biologist

This past fall, the Tribal Wildlife Program was awarded a grant by the US Fish and Wildlife Service for a project aimed at detecting the presence of fisher and lynx throughout the Ceded Territory of the Coeur d'Alene Tribe. This grant was awarded to the Tribe with the help of Idaho Department of Fish and Game, US Forest Service, Potlatch Corporation, and Forest Capital Partners, whom have all agreed to be partners in the project. The grant is referred to as the "Tribal Wildlife Grant", and is intended for projects that are submitted by Indian tribes to develop and implement programs for the benefit of wildlife and their habitat, including species of tribal cultural or traditional importance and species that are not hunted or fished. This particular grant proposal focuses on a group of mammals referred to as forest carnivores, and specifically fisher and lynx.

While many people are familiar with what a lynx is, few are as familiar with the fisher. The fisher is a member of the mustelid family; therefore it is related to pine marten, mink, skunks, badgers, and wolverines. It looks similar to a pine marten only significantly larger and stockier. Fisher lives in mature, dense, coniferous forests with closed canopies. They are solitary animals that are good climbers and

swimmers. Their primary prey items are snowshoe hares and porcupines, but will also feed on squirrels, mice, and chipmunks.



Lynx in his wintertime look.

The fisher and lynx both are generally associated with remote wilderness. Due to their reliance on remote habitat with multi-layered forest stands, they are excellent indicators of the overall integrity of an ecosystem. In the past century, distributions of these species have declined due to a combination of land development, timber harvest, trapping, and increased road densities in forested areas. As a result, both of these species are considered to be sensitive in the northwest, and lynx are federally listed. Sensitive species are those whose population viability is a concern because of significant current or predicted downward trends in abundance or habitat capability.



Fisher has caught his afternoon snack and hanging around.

It has been reported that fisher and lynx occur in scattered sub-populations, which are particularly subject to extirpation. Petitions to list these species as “endangered” in portions of their historical range have been denied, largely due to a lack of information regarding the current distribution of their populations. What is known, is that fisher and lynx have relatively low reproductive rates, occur at relatively low densities

throughout their historical range, and are significantly affected by the land-use practices of humans. What is not known is the current distribution of these species or their population attributes. This project represents the first step in this process, namely, beginning to identify the current distribution of these forest carnivores in a portion of northern Idaho. Once this information is established, the possibility of conducting more intensive research to identify specific population attributes will be much more feasible.

The Ceded Territory of the Tribe encompasses a large area that contains suitable habitat for fisher and lynx. Much of this habitat is on USFS land, in portions of the St. Joe, Clearwater, Coeur d’Alene, and Kaniksu National Forests. There were only 35 verified records of lynx in Idaho from 1960-1991, and none since 1991. Scattered surveys to determine the presence or absence of fisher and lynx have been and are currently being conducted by various agencies and organizations in the northern panhandle of Idaho and western Montana. However, very little is being studied in the majority of the Ceded Territory. In addition, various methods have been used in these studies, thus making it difficult to combine results in a scientifically significant way. Since it is such a large territory, there has been a need to develop a coordinated, systematic effort between several land-management agencies to gather information on these species. This effort will use standardized methods so that results can not only be combined and duplicated in the project area, but also may be combined with other similar projects throughout the west.

The project specifics are fairly simple. The Ceded Territory will be analyzed in order to determine the locations of the best potential lynx and fisher habitat. Hair snare devices will then be set out in each of these areas. These hair snares are simply open-ended boxes with some bait and a scented lure inside. Hair snares, usually barbed wire or wire brushes, are secured on the inside walls of the box. As the animal moves past the wire or brushes to get to the bait, some hair is left behind. This hair is collected and sent to a laboratory for DNA analysis. This analysis will reveal the species as well as identify individual animals. Once an area is identified as having a confirmed detection of fisher or lynx, it will be further surveyed to determine the extent of the local population.

The benefits of this project to the Coeur d’Alene Tribe as a whole are considerable. Since both of the target species are rare, and are good indicators of overall ecosystem integrity, data regarding their distribution can be used by the Tribe and other agencies when making natural resources related recommendations. This project will also provide a unique opportunity for the Tribe to take the lead role in a natural resource project that is occurring primarily

outside of the Reservation boundaries. It will also strengthen existing relationships with Idaho Fish and Game and US Forest Service, as well as create new working relationships with the private organizations involved. These partnerships can only increase the chances for success in any future cooperative projects undertaken by the Tribe.

Habitat Restoration Work in Evans Creek

By Stephanie Hallock, Habitat Biologist

In order to increase native fish populations in the streams on the reservation, the Coeur d'Alene Tribe's natural resources department is focusing on increasing the amount of high quality fish habitat in areas that have been impacted by human activity. One technique that is often used in stream restoration projects involves adding large wood to a section of stream. Placing wood in a channel will create deeper pools, provide areas for spawning gravels to accumulate, and provide cover for fish to hide from predators.

In October 2005, natural resources staff completed a habitat restoration project that involved placing wood along a 500 ft section of stream channel in Evans Creek. Evans Creek is a tributary to Medicine Lake, one of the chain lakes on the Coeur d'Alene River. Wood was placed within the main channel as well as portions of the floodplain. The goal of this project was to create pool habitats and provide cover for Westslope cutthroat trout. Wood on the floodplain will help reduce the velocity of flood flows.



Figure 1: Tribal staff (John, Dan, and Jeff) putting together the ELWd™ Structures.



Figure 2: The constructed ELWd™ structures.

Two types of “wood” were used in this project. The first type included 4000 board feet of pulp logs that came in a variety of sizes as large as 30 feet long and 2 feet in diameter. These logs were moved using an excavator. The second type of “wood” placed in the stream channel was an “engineered” alternative to large natural wood known as ELWd™ (which stands for Engineered Large Woody Debris). ELWd™ are wood structures that are formed from using smaller diameter logs that can be carried into the site and constructed by hand using 4-6 people. This makes them ideal for areas that are inaccessible to large machinery. In this project, we built 16 of the ELWd™ structures. When assembled they were approximately 25-27 inches in diameter and 20 feet long. Rock was added to the center of the structures, which were hollow, to add weight. Both types of wood structures were placed within the channel at different orientations. Tribal Fisheries staff will be monitoring the channel to evaluate how the channel responds to the wood that was placed.

Windy Bay update

By Gerald I. Green, Wildlife Biologist

The wetlands at the mouth of Lake Creek are within a property owned by the Coeur d'Alene Tribe and managed by the Wildlife Program. An assessment of habitats and conditions on that property was completed in the fall of 2004. Aerial photographs taken in 1933 were compared with the aerial photographs taken in 2004. The difference in vegetation types is quite striking between 1933 and now along the final meanders of Lake Creek just before it empties into Coeur d'Alene Lake. A thick tangle of shrubs can be readily seen in the 1933 photos of those flats. However, those same areas support a

thick stand of cattails today. The difference in the habitats can be attributed to the effects of the “reverse hydrology” that is the result of how Post Falls Dam operates.

Historically, the water in Coeur d’Alene Lake was highest in late winter and early spring and lowest in late summer and early fall. Now, however, the waters of Coeur d’Alene Lake are held at high levels throughout the summer and lowered only after the growing season is over. With the waters at higher levels throughout the summer, soils near the level of the Lake remain wet throughout the growing season. Cattails can grow more readily in wet soils than can shrubs. As the soils remained wet year after year through the summer growing season, the shrub communities died out and were replaced by cattails. Shrubs persist along the periphery of the cattails and at the base of the slopes that rise on either side of the Lake Creek Canyon, where the soils dry sufficiently to prevent the cattails from establishing. The particular condition of these shrubs, however, must be looked at more closely to determine their condition. If they are young and thriving than nothing can be done to improve the habitats other than prevent invasions of noxious weeds. If, however, they are over mature and decadent they will provide little browse for wildlife, and techniques to rejuvenate the stand will need to be employed. Fire is one of the first options for rejuvenating native habitat; however the location of the shrub communities at the bottom of Lake Creek Canyon with private lands and homes upslope may well limit that tool. Other options such as heavy brush cutting equipment or hand removal may be used depending on accessibility and costs. First however we must examine the condition of the shrubs closely to determine whether the habitat and thus the wildlife of the area will benefit from removal of the shrubs.

HISTORIC CHANNEL IN BENEWAH VALLEY SEES WATER (AND FISH) AGAIN AFTER NEARLY A CENTURY

By Angelo Vitale, Fisheries Biologist

The winds of change in the Benewah Valley are blowing toward the past as of late - in part due to the labors of the Tribal Fisheries Program to reconstruct the historical conditions of the stream in an effort to recover native fish populations. Years of discussion between Elders, the Natural Resources Committee and Fisheries staff have helped shape an understanding of the historical conditions in the Valley that supported spawning runs of adult cutthroat trout that once numbered in the thousands. This understanding has been carried through to the most recent and, perhaps, the most ambitious project undertaken by the Program to date.

Beginning in ‘yalstq (July) this year, Tribal staff began construction on a design to place more than 3.2 miles of the stream back in its historical alignment and elevation in the valley. The objective is to reverse years of channel degradation that has reduced the ability of the stream to support fishes, especially the native trout that rely on clean, cold water, and has landed Benewah Creek on the Environmental Protection Agency’s list of impaired waterbodies - largely as a result of the vast amount of sediment generated from stream bank erosion. Staff is now wrapping up the first season of construction in the larger effort that will take nearly six years to complete.

‘Eltumish is the Coeur d’Alene language word for the native cutthroat trout

The significant contributions of Tribal members can be seen in all aspects of the work completed to date. Tribal Elder, Felix Aripa, has been serving as advisor/consultant on the design and was assigned as the Natural Resource Committee liaison for the project. Felix generously named the project the ‘Eltumish Project, after the Coeur d’Alene language word for the native cutthroat trout. It seems a particularly appropriate name that honors both the fish and the Coeur d’Alene People who share close ties and have persisted together through so many changes in the Coeur d’Alene Basin. The Tribal Council has also played a role in the project by passing several resolutions authorizing the work (CD’A Resolutions 342[2003]; 06[2005]; 149[2005]). The project would not have been undertaken without their leap of faith in supporting the Fisheries Program and what is one of the largest projects of its kind undertaken in Idaho.



George Aripa (excavator operator) places wood in a pool to create a “fish hotel” in Benewah Creek.

Unlike other projects the Fisheries Program has undertaken, the construction has been completed entirely by Tribal staff rather than relying on subcontractors. George Aripa and Jeff Jordan are serving as the lead equipment operators - using an excavator and dozer to shape the channel and place

rock and large wood to enhance the stream habitat. The project benefited greatly by using staff that have close ties to the land and an appreciation and understanding of the historical importance and uses of the area. The work completed this summer was complex and at different times involved preparing the abandoned historical channel, which hasn't had water flowing through it for more than 70 years; filling the existing channel with dirt to create new floodplain and wetlands; and hauling and placing rock to lift the stream to its historic elevation in the valley. The rock brought in to fill the channel was crushed and screened to meet engineering specifications at the Tribal rock pit in Plummer. Logs were purchased from Tribal timber sales on Windfall pass and at the Casino.

Temporary workers hired through the TERO office made big contributions to this project. These people included Cindy Dubois, Roberta Matt, Debbie Aripa, Phillip Fulton, Irvin Falcon III, and Ray Lowley. They contributed by working as additional equipment operators and by planting more than 20,000 native plants on the site. For Cindy (Aripa) Dubois, doing this work on this part of the Reservation is very special because her dad used to tell her about how good the fishing, hunting and swimming was in the area. The landowners that adjoin Tribal property in the valley have also been involved from the beginning. Gary and Janice Barichello, who own land at the downstream end of the work site, agreed to let the Tribe construct critical portions of the project through their property. Janice commented that she was excited that maybe some day this would help restore the cutthroat trout back to its former glory. She recalled years ago when the fish used to be two feet long and weigh up to 5 lbs – a time when there were plenty of fish to go around.

Feedback on the project has been mostly positive so far. The Tribe's long-term vision to restore the fishery garnered support from the **Bonneville**

Environmental Foundation (BEF) Board of Directors, who recently voted unanimously to establish a 10-year funding partnership with the Coeur d'Alene Tribe to support restoration and monitoring in Benewah Creek. They committed an initial \$100,000 to support monitoring of restoration efforts, and the Foundation expects to offer additional support services over the next 10 years that may enhance the Tribe's ability to implement effective watershed and fisheries restoration work. According to Todd Reeve, the Foundation's Director of Watershed Programs, "The Tribe's ongoing restoration and monitoring efforts in Benewah Creek provide a perfect opportunity for BEF to support watershed restoration efforts that have a very high likelihood of success".

Tribal biologist, Dr. Dale Chess, will oversee the monitoring with help from Tribal technicians, including Dan Jolibois, John LaSarte and Brian Harper, once channel construction is completed. The monitoring crew will look at how fish begin to use the restored areas and whether numbers of trout increase over time. Very few fisheries projects across the entire Columbia Basin have collected the detailed information that is necessary for definitively linking restoration actions with fish response and recovery. The Program has been monitoring the movements and behavior of fish in the watershed for well over 10 years now to help provide the link between what's happening in the stream and the lake to the decision makers. "One of our goals is to provide Tribal leaders and the public with the best possible information to inform management decisions related to fish", says Chess. The Tribe will be well positioned to share what we learn here and to educate others interested in doing similar work.

Additional praise for the project has come from the federal agencies responsible for regulating work in wetlands, including the Army Corps of Engineers and the Environmental Protection Agency. The scope of the project has certainly left an impression on those who have toured the site. When the Tribal Casino hosted a conference for university extension educators this summer, participants in a Benewah Creek field trip were anxious to schedule their national meeting on the Reservation in 2015 in order to view the results of future work! Tribal Elder Felix Aripa told the group that the 'Eltumish project represents the Tribal vision of preserving natural resources for future generations. He also emphasized that the project should serve as an example to others because the work is being completed on Tribal lands, using Tribal staff and contractors, for the benefit of the entire Reservation community.

As work winds down for the season, water is once again flowing quietly through a natural channel that has been dry for nearly a century. Please stay



The newly constructed channel is characterized by deep, cold pools that will hold fish throughout the year.

tuned and we will keep readers apprised of results and future progress.

***hnt'k'wipn* update**

By Gerald I. Green, Wildlife Biologist

Hangman Creek and its tributaries near DeSmet lie between 5 and 10 feet below what was once floodplain. Only in a few places and during very heavy rains does Hangman overflow its banks in that area. In reviewing the history of Hangman, we discovered that available records indicate the Hangman Channel was deepened and straightened only below Highway 95. The purpose of the deepening and straightening was to increase the arable farmland in the Hangman Valley at a time when it was believed that maximizing agricultural production was the best use of the landscape. There is no reason to believe that people involved with and given the responsibility to straighten these channels were aware of the extent to which their actions would affect the landscape.

Long term residents of Hangman have told us that the channels upstream of Highway 95 were “cleaned out” but we have not found records of extensive straightening and deepening of Hangman Creek upstream of Highway 95. Once a stream bottom is lowered at one spot, however, the upstream reaches will cut into the landscape until water flows at an even pace throughout the whole stream. This deepening of the stream channel above a disturbed area is referred to as a headcut. We believe this is the primary reason the streams upstream of Highway 95 are so deeply entrenched into the land. Deepening and widening the stream channel below Highway 95 began a headcut that dug the streams above Highway 95 deep into the landscape.

The Tribe recently purchased approximately 1,200 acres just upstream of where Highway 95 crosses Hangman as part of the Tribal Wildlife Program’s efforts to mitigate for construction of Albeni Falls Dam. The area that was purchased has been named *hnt'k'wipn* by Tribal elders. Hangman and Sheep Creeks meet roughly in the middle of *hnt'k'wipn* and both these streams lie approximately 10 feet below the surrounding lands. Tribal Water Resources Program and the Wildlife Program surveyed cross sections at several locations along Hangman Creek within *hnt'k'wipn*. A cross section is measuring the ground elevation along a line that runs straight across a river from a high point on one side to a high point on the other. The result of one of those surveys is illustrated in Figure 1, “on the next page.”

The highest points on either side of the graph indicate the original flood plain of Hangman Creek. The lowest points toward the middle of the graph represent the current elevation of the stream. Primarily

as the result of a headcut that started below Highway 95, the streambed illustrated on the graph is actually 11 – 12 feet below the original floodplain, deep enough that even during flood stages, Hangman Creek in the area where the cross section was measured does not overflow its channel banks. High waters carry a great deal of energy and that energy increases as flows rise during heavy rains. While the channel may in the short term hold the high waters, it cannot in the long term withstand the energy that is generated by the high waters. From a geologic time frame Hangman Creek is ripping away the landscape at an alarming rate. This process will continue until a new floodplain is built, below the original flood plain, which is broad enough to accommodate all the energy of the high waters. Once the new floodplain is fully established, the original flood plain technically becomes a terrace. This new flood plain illustrated that is not yet fully formed (not yet able to dissipate all the energy of high flows) is quite apparent on the landscape and shows up on Figure 1 as the flat between the 40ft and 100ft marks of the horizontal scale. This flat is above the stream yet below the high points of the original flood plain, which technically is now a terrace.

The issue with Hangman Creek is that the process building a new flood plain is in the midst of happening, which means we have the opportunity to determine how the event will progress through its future stages. In assessing the *hnt'k'wipn* we are quantifying conditions in the area and looking for ways to improve fish and wildlife habitats. When high waters flow through the Hangman Watershed, immense amounts of sediment are released into Hangman as banks are cut away, fish habitats are being degraded by soils that once supported crop lands or wildlife habitats. We are searching for ways to stabilize the stream channels in Hangman Creek and hopefully establish productive fish and wildlife habitat in a landscape that currently is very unstable. As we quantify the processes that play out in Hangman, we learn more about the intricacies of the processes of erosion, flood plain functions and the interactions of fish and wildlife habitats. With the knowledge gained through these careful observations we can more fully take part in the processes that determine what kind of habitats are expressed in Hangman Creek, and what kind of habitat will be available 10, 20, or 30 years from now.

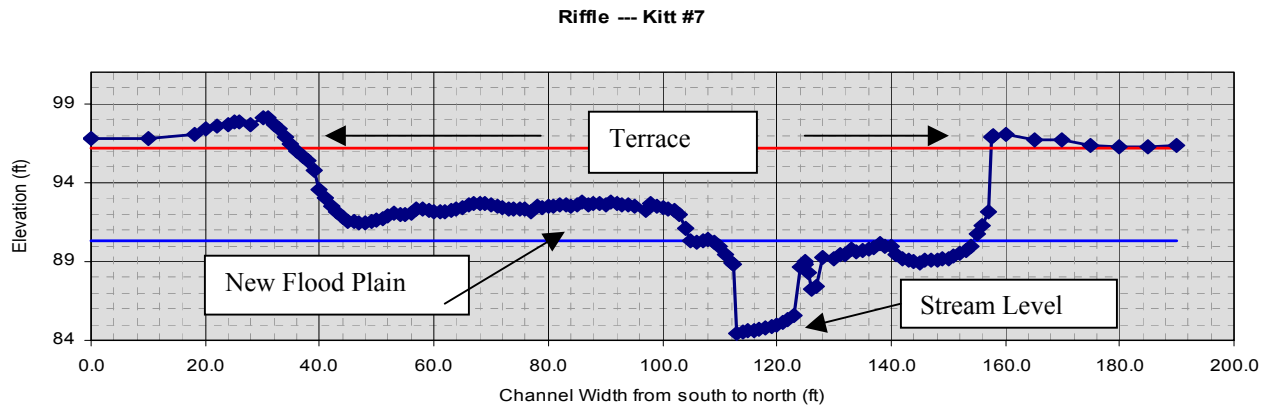


Figure 1. Results of a surveyed cross-section of Hangman Creek about 1 mile upstream of the Highway 95 bridge. Each dashed line on the vertical scale represents 1 foot, while each dashed line on the horizontal scale represents 2 feet.